IN THE DRAWINGS

Please approve the changes to FIGS. 3 and 5 as indicated in red on the sheets attached to the accompanying Letter to the Official Draftsman.

IN THE CLAIMS

Please amend claims 1, 3, 6, 7, 13, 14, 19, 24 and 25 as follows:

1. (Twice Amended) A voltage doubler receiving at an input a continuous power voltage and supplying at an output a voltage having a value virtually double that of said continuous power voltage, the voltage doubler comprising:

a. an oscillator, powered by said continuous power voltage having a first output, and a second output in phase opposition to the first output,

b. a charge accumulation condenser having a first terminal connected to a potential reference and a second terminal connected to the output of the doubler,

c. a first charge transfer condenser having a first terminal connected to said first output of said oscillator, and

d. two CMOS inverters connected together in a loop to form a flip-flop having a first input connected to a second terminal of said first condenser, negative power terminals connected together to said continuous power voltage and positive power terminals connected together to said second terminal of said charge accumulation condenser, and

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e. a second charge transfer condenser having a first terminal connected to said second output of said oscillator and a second terminal connected to a second input of said inverters.

3. (Thrice Amended) A voltage doubler receiving at an input a continuous power voltage and supplying at an output a voltage having a value virtually double that of said continuous power voltage, the voltage doubler comprising:

a. an oscillator powered by said continuous power voltage and having two outputs in phase opposition,

b. a charge accumulation condenser having a first terminal connected to a potential reference and a second terminal connected to the output of the doubler,

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c. a first charge transfer condenser and a second charge transfer condenser having first terminals respectively connected to the outputs of said oscillator,

d. a bridge comprising four transistors and corresponding bulk diodes of the transistors, the transistors being arranged so that the four bulk diodes [for] <u>form</u> a bridge, <u>said bridge</u> having a positive terminal connected to the second terminal of said charge accumulation condenser, a negative terminal connected to said continuous power voltage and two intermediate terminals respectively connected to second terminals of said first charge transfer condenser and said second charge transfer condenser, and

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the four transistors having principal conduction paths connected in parallel with said four diodes and control terminals connected to the first charge transfer condenser and the second charge transfer condenser in such a way as to lower a voltage drop along branches of the bridge when the doubler reaches a steady state.

5 6. (Thrice Amended) A voltage booster receiving at an input a continuous power voltage and supplying at an output a voltage higher than the continuous power voltage, the voltage booster comprising:

a. an oscillator powered by said continuous power voltage, having two outputs in phase opposition,

E3 b. a charge accumulation condenser having a first terminal connected to a first potential reference and a second terminal connected to the output of the booster, and

c. at least one charging section having a charge output terminal, a power input terminal, a first side terminal and a second side terminal respectively connected to the outputs of said oscillator, and said at least one charging section being connected in series with the output terminal connected to the second terminal of said charge accumulation condenser and the input terminal connected to the continuous power voltage,

wherein the at least one charging section comprises:

a first charge transfer condenser and a second charge transfer condenser having respective first terminals connected to said first and second side terminals, and

a bridge of four controlled switches having two intermediate terminals connected to respective second terminals of said first charge transfer condenser and said second charge transfer condenser, a negative terminal connected to said power input terminal and a positive terminal connected to said charge output terminal ,

and wherein the value of the voltage of the output corresponds to said continuous power voltage plus the product of said continuous power voltage and a number of the at least one charging section.

6. (Twice Amended) The voltage booster in accordance with claim 5, wherein the switches of said bridge form two CMOS inverters connected together in a loop to form a flip-flop, having inputs connected to respective second terminals of said first charge transfer condenser and said second charge transfer condenser, negative power terminals connected together to said power input terminal and positive power terminals connected together to said charge output terminal.

11. (Thrice Amended) An electrically programmable and delectable non-volatile memory device of a type powered with a low voltage comprising:

a. an oscillator powered by said low voltage, having two outputs in phase opposition,

b. a charge accumulation condenser having a first terminal connected to a first potential reference and a second terminal connected to an output of the memory device, and

c. at least one charging section having a charge output terminal, a power input terminal, a first side terminal and a second side terminal respectively connected to the outputs of said oscillator and said at least one charging section being connected in series with the output terminal connected to the second terminal of said charge accumulation condenser and the input terminal connected to the low voltage,

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wherein the at least one charging section comprises:

a first charge transfer condenser and a second charge transfer condenser having respective first terminals connected to said first and second side terminals, and

a bridge of <u>four</u> controlled switches having two intermediate terminals connected to respective second terminals of said first charge transfer condenser and said second charge transfer condenser, a negative terminal connected to said power input terminal and a positive terminal connected to said charge output terminal,

and wherein the value of the voltage of the output corresponds to said [continuous power] <u>low</u> voltage plus the product of said [continuous power] <u>low</u> voltage and a number of the at least one charging section.

12 ~~14~~. (Thrice Amended) A voltage regulator having a low voltage drop between an input and an output of a type having a MOS power transistor as an output regulation element and a voltage booster means having an output coupled to a control terminal of said power transistor to maintain a conduction condition on the power transistor when operating conditions of the regulator change, wherein the voltage booster means includes:

a. an oscillator powered by a continuous power voltage, having two outputs in phase opposition,

b. a charge accumulation condenser having a first terminal connected to a first potential reference and a second terminal connected to the output of the voltage booster means, and

c. at least one charging section having a charge output terminal, a power input terminal, a first side terminal and a second side terminal respectively connected to the outputs of said oscillator and said at least one charging section being connected in series with the output terminal connected to the second terminal of said charge accumulation condenser and the input terminal connected to the continuous power voltage,

wherein the at least one charging section comprises:

a first charge transfer condenser and a second charge transfer condenser having respective first terminals connected to said first and second side terminals, and

a bridge of <u>four</u> controlled switches having two intermediate terminals connected to

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respective second terminals of said first charge transfer condenser and said second charge transfer condenser, a negative terminal connected to said power input terminal and a positive terminal connected to said charge output terminal ,

and wherein the value of the voltage of the output corresponds to said continuous power voltage plus the product of said continuous power voltage and a number of the at least one charging section.

16 ~~19~~. (Twice Amended) A voltage multiplier receiving a constant voltage comprising:

an oscillator providing two outputs in phase opposition;

multiplying means connected to the constant voltage and the oscillator outputs for generating a multiplied voltage which is a multiple of the constant voltage; and

output means receiving the multiplied voltage for outputting a substantially constant output voltage which is a multiple of the constant voltage;

wherein the multiplying means includes:

at least one first charge transfer condenser connected to one output of the oscillator;

at least one second charge transfer condenser connected to another output of the oscillator;

at least one bridge circuit <u>of four controlled switches</u> having an input coupled to the constant voltage, an output providing the multiplied voltage, and at least two side inputs respectively coupled to the at least one first charge transfer condenser and the at least one second charge transfer condenser.

24. (Twice Amended) A method for generating a principal output voltage based upon a low constant input voltage comprising the steps of:

generating a first periodic signal;

generating a second periodic signal out of phase to said first periodic signal;

applying the first periodic signal to at least one first charge transfer condenser;

applying the second periodic signal to at least one second charge transfer condenser;

generating said output voltage based upon said input voltage, an output voltage of the at least one first charge transfer condenser, an output voltage of the at least one second charge transfer condenser;

wherein the step of generating the output voltage includes the steps of:

applying said input voltage, the output voltage of the at least one first charge transfer condenser, and the output voltage of the at least one second charge transfer condenser to inputs of a bridge circuit of four controlled switches;

applying an output of the bridge circuit to a first terminal of a charge accumulation condenser, a second terminal of the charge accumulation condenser being connected to a potential reference; and

providing said principal output voltage at said first terminal of the charge accumulation condenser.

25. (Twice Amended) A method for generating a principal output voltage based upon

a low constant input voltage comprising the steps of:

generating a first periodic signal;

generating a second periodic signal out of phase to said first periodic signal;

applying the first periodic signal to at least one first charge transfer condenser;

applying the second periodic signal to at least one second charge transfer condenser;

generating said principal output voltage based upon said input voltage, an output voltage of the at least one first charge transfer condenser, an output voltage of the at least one second charge transfer condenser;

wherein:

the first periodic signal is applied to a plurality of first charge transfer condensers;

the second periodic signal is applied to a plurality of second charge transfer condensers; and

the generating step includes:

applying respective outputs of the plurality of first charge transfer condensers and respective outputs of the plurality of second charge transfer condensers as inputs to a respective plurality of bridge circuits of four controlled switches arranged in a series;

applying the input voltage to an input of a first bridge circuit in the series of the plurality of bridge circuits; and

providing an output of a last bridge circuit in the series of the plurality of bridge circuits as the output voltage.